MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY.

E. B. KNOBEL, Esq., President, in the Chair.

Joseph Ibbitson Berry, 20 Alwyne Road, Canonbury, N.;
Martin Brendel, Ph.D., Privat-Docent at the University,
 Greifswald, Germany;
Ernest Gould Dixon, 4 The Lawn, Balham Park Road, S.W.;
Harold Dennis Taylor, 20 Bootham Terrace, York,

were balloted for and duly elected Fellows of the Society.

The following candidates were proposed for election as Fellows of the Society, the names of the proposers from personal knowledge being appended:—

Maurice Anderson Ainslie, B.A., Giggleswick School, Settle,
 Yorkshire (proposed by W. H. M. Christie);
James Arthur Formoy, F.C.S., Lestelle, London Road, Forest
 Hill, S.E. (proposed by Raphael Meldola);
Henry Bateman Massey, Engineer, &c., Spalding (proposed
 by George Calver);
John Mills, Editor of *Science and Art*, 11 Henrietta Street,
 Covent Garden, W.C., and 44 Orbel Street, Battersea
 Park, S.W. (proposed by A. Fowler);
Edward Turner Whitelow, Civil Engineer, 70 Deansgate,
 Manchester (proposed by Arthur Mee).

Seventy-six presents were announced as having been received since the last meeting, including, amongst others—
 Arthur Cayley, Collected Mathematical Papers, vol. v., presented by the author; Sir R. S. Ball, Atlas of Astronomy,

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presented by the publishers ; Berlin Observatory, Zonenbeobach-tungen 20° bis 25°, presented by the Observatory ; Padua University, Papers relating to the Galileo Tercentenary, pre-sented by the University ; *Nautical Almanac* for 1896, and ditto, part i., presented by the Admiralty ; Fifteen lantern slides of solar prominences, faculæ, &c., taken at the Kenwood Observa-tory, Chicago, presented by Professor G. E. Hale ; Seven lantern slides of lunar eclipse, 1892, May 11, presented by Mr. Newbegin.

Opposition of Mars, 1892. Observations made at the Royal Obser-vatory, Cape of Good Hope. By David Gill, LL.D., F.R.S., H.M. Astronomer.

When Professor Eastman's programme reached the Cape I removed the declination micrometer frame of the transit circle, and with the apparatus which is attached for this purpose to our Repsold photograph-measuring micrometer ruled a pair of lines upon it and inserted a new pair of webs, 16″ apart, parallel to the old declination web.

Subjoined are the data relative to the distance and inclination of the wires thus inserted.

The distance between the wires at the middle wire was found to be 16″·03.

The inclination was determined as follows :—

1. The transit circle pointing north was placed horizontal, and the north collimator was rotated about its optical axis till the horizontal web of the collimator became parallel to that of the transit circle.

2. The south collimator was directed upon the north colli-mator, and its horizontal wire adjusted to parallelism with that of the north collimator.

3. The transit circle was then directed to the south collimator, and the inclination of its horizontal wire with respect to the corresponding collimator wire was measured. It is clear that half the apparent inclination of the horizontal web of the transit circle to that of the south collimator will then be the true incli-nation of the transit-circle web.

The process is an exceedingly accurate one, independent determinations on June 23, 27, 29, and 30 giving practically identical results.

For the new wires (named Y and Z) the mean corrections were :—

At point of intersection by the vertical webs

			Middle Wire.			
	α	β	1	7	γ	δ
Y	−0″·06	−0″·01	+0″·02	+0″·02	−0″·04	+0″·05
Z	−0·02	+0·01	−0·02	+0·03	−0·01	+0·05